

2008 Louisiana State University Combined Research and Extension Annual Report of Accomplishments and Results

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I. Report Overview

1. Executive Summary

The mission of the LSU Agricultural Center is to enhance the quality of life for the people of Louisiana through research and education programs that develop the best use of natural resources, conserve and protect the environment, enhance the development of existing and new agricultural and related enterprises, develop human and community resources, and fulfill the acts of authorization and mandates of state and legislative bodies.

In realizing this mission, the LSU Agricultural Center in FY 2008 directed research and extension education programs under nine main program areas: 4-H Youth Development; Animal and Animal Production Systems; Community Development; Crops and Crop Production Systems; Environment and Natural Resources; Family Development; Food and Nutrition; Forestry and Forest Products; and Horticulture.

Research Project Summary

Louisiana Agricultural Experiment Station scientists, located on the Louisiana State University and Agricultural and Mechanical College campus and at branch Research Stations located across the state, continue to serve stakeholders by conducting research relevant to Louisiana agriculture. Research results are disseminated to producers, consultants, agribusiness, government agencies, and other stakeholders, both directly and through extension educators.

Extension Program Summary

Education programs of the Louisiana Cooperative Extension Service were conducted in all main programs by Extension faculty located in academic department on the LSU campus in Baton Rouge as well as parish (county) based faculty in each of Louisiana's 64 parishes. Research based information is disseminated to Extension clientele through time honored delivery methods such as group meetings, one-on-one contacts, and ever increasingly through the use of web based technology.

Total Actual Amount of professional FTEs/SYs for this State

Year:2008	Extension		Research	
	1862	1890	1862	1890
Plan	350.0	0.0	161.0	0.0
Actual	254.9	0.0	157.0	0.0

II. Merit Review Process

1. The Merit Review Process that was Employed for this year

- Combined External and Internal University External Non-University Panel

2. Brief Explanation

III. Stakeholder Input

1. Actions taken to seek stakeholder input that encouraged their participation

- Use of media to announce public meetings and listening sessions
- Targeted invitation to traditional stakeholder groups
- Targeted invitation to non-traditional stakeholder groups
- Targeted invitation to traditional stakeholder individuals
- Targeted invitation to non-traditional stakeholder individuals
- Targeted invitation to selected individuals from general public
- Survey of traditional stakeholder groups
- Survey of traditional stakeholder individuals

Brief Explanation

Extension programs are guided by input from overall parish (county) advisory leadership councils as well as subject matter specific advisory groups which meet on an as needed basis.

2(A). A brief statement of the process that was used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

1. Method to identify individuals and groups

- Use Advisory Committees
- Needs Assessments
- Use Surveys

Brief Explanation

Stakeholders are identified as those interested in and knowledgeable about LSU AgCenter programs. Input obtained from these individuals and groups through informal means such as individual contacts as well as more formal means such as advisory groups.

2(B). A brief statement of the process that was used by the recipient institution to identify individuals and groups who are stakeholders and to collect input from them

1. Methods for collecting Stakeholder Input

- Meeting with traditional Stakeholder groups
- Survey of traditional Stakeholder groups
- Meeting with traditional Stakeholder individuals
- Survey of traditional Stakeholder individuals
- Meeting with invited selected individuals from the general public
- Survey of selected individuals from the general public

Brief Explanation

Advisory council meetings were held in all 64 Louisiana parishes (counties) during FY2008.

3. A statement of how the input was considered

- In the Budget Process
- To Identify Emerging Issues
- Redirect Extension Programs
- Redirect Research Programs
- In the Staff Hiring Process
- In the Action Plans
- To Set Priorities

Brief Explanation**Brief Explanation of what you learned from your Stakeholders**

Parenting skills

- Childhood obesity
- Lack of positive activities for youth/adult interaction
- Small business development programs and training
- Decline of row crop acreage due to government programs and purchases of land for recreational uses

Lack of employment opportunities for young graduates

- Economic impact of changes in production agriculture
- Cost of production in agriculture programs
- Coastal zone land loss and protection

IV. Expenditure Summary

1. Total Actual Formula dollars Allocated (prepopulated from C-REEMS)			
Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
4701487	0	3251838	0

2. Totaled Actual dollars from Planned Programs Inputs				
Extension			Research	
	Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
Actual Formula	4439860	0	4423676	0
Actual Matching	4439860	0	4423676	0
Actual All Other	27335500	0	57072780	0
Total Actual Expended	36215220	0	65920132	0

3. Amount of Above Actual Formula Dollars Expended which comes from Carryover funds from previous years				
Carryover	3640979	0	2055548	0

V. Planned Program Table of Content

S. NO.	PROGRAM NAME
1	Animals and Animal Production Systems
2	Community Development
3	Crops and Crop Production Systems
4	Environment and Natural Resources
5	Family Development
6	Forestry and Forest Products
7	Horticulture
8	Nutrition and Food
9	Youth Development

Program #1**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Animals and Animal Production Systems

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
301	Reproductive Performance of Animals	17%		17%	
302	Nutrient Utilization in Animals	21%		21%	
303	Genetic Improvement of Animals	15%		15%	
307	Animal Management Systems	24%		24%	
311	Animal Diseases	23%		23%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	9.5	0.0	34.4	0.0
Actual	23.0	0.0	31.2	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
408409	0	1274832	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
408409	0	1274832	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
2317340	0	14477707	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

- Appropriate research experiments
- Result demonstrations
- One-on-One consultations as appropriate

2. Brief description of the target audience

Livestock producers, youth and parents engaged in exhibiting livestock, agribusiness company representatives, governmental agencies, and the general consuming public.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	90000	35000	0	0
2008	69434	143344	44244	11886

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted**

Year Target
Plan: 2
 2008 : 1

Patents listed

Fiber Optic Lighted Speculum

3. Publications (Standard General Output Measure)**Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	0	60	
2008	58	50	0

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Clientele reached

Year	Target	Actual
2008	20000	20000

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Percentage of producers adopting extension recommended practices

Outcome #1**1. Outcome Measures**

Percentage of producers adopting extension recommended practices

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	70	70

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Louisiana animal producers struggle to reduce input costs and increase productivity. The hot, humid climate creates challenges of heat-stress, high parasite populations, poor reproduction, disease pressures and low dissolved oxygen in water. Assessing animal adaptability and designing effective production systems that manage the relationships among genetics, physiology, nutrition, and environment are key concerns. Improving the safety, quality, functionality, consumer acceptance, and sustainability of animal products are ongoing concerns of production industries.

What has been done

Research and extension programs addressed aquaculture, livestock, and poultry species and emphasized animal health, genetics, nutrition, reproductive physiology and comparative production management systems. Enhancing the functionality, safety and acceptance of animal products was also examined. Information was disseminated via meetings with scientists and producers, field days, production manuals, fact sheets, and web-based publications. Distance education technology allowed multi-university collaboration in program development and delivery.

Results

Recommendations on water management in crawfish farming were disseminated. Sperm preservation for live-bearing fishes was studied. Research on salinity tolerance of tilapia, and spawning of catfish and marine baitfish continued. Protein-energy ratios for pompano diets were identified and use of soybean products in pompano feeds was investigated. Modifications of diets for dairy cattle, swine, and poultry to increase nutrient utilization and animal productivity were studied. Vaccine development for bovine brucellosis and respiratory disease, and enteric septicemia of catfish continued. Impacts of parasite control on beef cattle production, and interactions of genetics with heat stress, internal parasite resistance, temperament and maternal differences among five breeds of tropically adapted beef cattle were examined. Forage legumes (alfalfa and clovers) were evaluated for nitrogen fertilization, establishment and nutrient utilization. Methods to enhance the safety and health benefits of dairy foods were studied. A guide to meat goat selection and carcass evaluation was developed and 6,000 people in 12 states were trained in the procedures.

4. Associated Knowledge Areas

KA Code	Knowledge Area
311	Animal Diseases
301	Reproductive Performance of Animals
303	Genetic Improvement of Animals
307	Animal Management Systems
302	Nutrient Utilization in Animals

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Retrospective (post program)
- Before-After (before and after program)
- During (during program)

Evaluation Results

Key Items of Evaluation

Program #2**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Community Development

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
803	Sociological and Technological Change Affecting Individuals, Families and Communities	10%		10%	
805	Community Institutions, Health, and Social Services	90%		90%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	12.0	0.0	4.9	0.0
Actual	9.1	0.0	5.7	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
161485	0	322674	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
161485	0	322674	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
916274	0	1247596	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Appropriate research activity; appropriate educational experiences, i.e. group meetings, mass media, etc.; Individual consultations as appropriate.

2. Brief description of the target audience

General public; elected officials; governmental agencies

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	33000	40000	0	0
2008	82157	25480	45506	0

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted**

Year Target
Plan: 0
 2008 : 1

Patents listed

Biomass Gasifier System for Heat and Electricity Generation

3. Publications (Standard General Output Measure)**Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	0	5	
2008	8	4	0

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Clientele reached

Year	Target	Actual
2008	5000	5000

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Percentage of clientele who become more civically engaged

Outcome #1**1. Outcome Measures**

Percentage of clientele who become more civically engaged

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	15	15

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Rural Louisiana suffers from a lack of healthcare, access to education and broadband internet connectivity, and overall has been marked by persistent poverty for decades. It is easy to depict rural Louisiana as the declining remnant of an agricultural economy. One out of every four people in rural Louisiana lives below poverty and roughly three quarters of our rural parishes are defined as persistent poverty counties. These conditions also make it difficult for our coastal rural parishes to be resilient in the face of natural disasters.

What has been done

The LSU AgCenter's Delta Rural Development Center faculty developed programs to address persistent poverty conditions in rural Louisiana. The Center provided educational programs in entrepreneurship, leadership, agricultural enterprise development and rural tourism.

Results

Louisiana Economic Development, Entergy Corporation and SU AgCenter collaborated to develop new Extension programs in e-business and leadership (Lead Louisiana), resulting in pilot program e-business training to 125 entrepreneurs and leadership training to 50 community leaders. Faculty led the development of a state legislated regional development effort called the Louisiana Delta Initiative (LDI) and a 12-parish regional economic development plan. LDI work included mapping broadband service in rural areas of West and East Carroll Parishes, Connect Carroll, and provided technical assistance to 12 parish region to spur e-business growth in rural areas. Faculty led regional collaborations to increase access to higher education for 30 students through the Rural Community College Initiative. Faculty also led development of the Miss-Lou Rural Tourism Summit and Louisiana Delta 65 regional development organizations. Extension efforts also examined rural local government financial impacts due to the 2008 hurricane season and farm level impacts related to high energy prices.

4. Associated Knowledge Areas

KA Code	Knowledge Area
803	Sociological and Technological Change Affecting Individuals, Families and Communities
805	Community Institutions, Health, and Social Services

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Public Policy changes
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(l). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Case Study
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #3**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Crops and Crop Production Systems

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
201	Plant Genome, Genetics, and Genetic Mechanisms	12%		12%	
202	Plant Genetic Resources	7%		7%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	7%		7%	
204	Plant Product Quality and Utility (Preharvest)	10%		10%	
205	Plant Management Systems	14%		14%	
211	Insects, Mites, and Other Arthropods Affecting Plants	14%		14%	
212	Pathogens and Nematodes Affecting Plants	16%		16%	
213	Weeds Affecting Plants	10%		10%	
216	Integrated Pest Management Systems	5%		5%	
601	Economics of Agricultural Production and Farm Management	5%		5%	
Total		100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	60.0	0.0	49.5	0.0
Actual	28.2	0.0	57.5	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
499522	0	1194202	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
499522	0	1194202	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
2834316	0	22308914	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Appropriate research experiments; Result demonstrations; Individual consultations as appropriate; Group meetings

2. Brief description of the target audience

Producers; agri-business company representative and government agencies

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	180000	280000	0	0
2008	96926	288386	11160	0

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 1

2008 : 1

Patents listed

Integrated Process for Ethanol Production from Lignocellulosic Biomass

3. Publications (Standard General Output Measure)**Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	0	60	
2008	128	54	0

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Clientele reached

Year	Target	Actual
2008	100000	100000

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Percentage of producers adopting best management practices

Outcome #1**1. Outcome Measures**

Percentage of producers adopting best management practices

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	75	75

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Louisiana's crop diversity poses challenges to agronomic, economic, and environmental issues and concerns faced by agricultural producers. Crop production is affected by the wide range of crops and crop rotations used along with the variation in soils and climatic conditions. Major crops include corn, cotton, rice, grain sorghum, soybeans, sugarcane, sweet potatoes, and wheat. Research in variety development, plant nutrition, pest management, cultural practices, and farm management are needed to sustain crop production as a viable economic industry.

What has been done

Breeding programs are essential to enhance yield potential and pest resistance in all crops. Major efforts focus on rice, sugarcane, wheat, sweet potatoes and are expanding into smooth cord grass for coastal wetlands restoration. Research on crop production, addressed yield and production costs and focuses on maximizing net return per acre. Evaluation efforts for potential crops as biofuel feedstocks are expanding. Developing best management practices for major crops produced in the state is ongoing.

Results

Newly released varieties of major crops, such as rice, sugarcane and wheat, provide producers with crop production options to sustain or improve farm production net economic returns. Evaluation of the agronomic and economic potential of biofuel feedstock crops such as energy cane or sweet sorghum provide valuable information to producers considering expansion of production into new crops. Revised crop fertilization recommendations allow growers to produce economically optimal yields and to maximize returns per acre. Ongoing research and extension recommendations for crop weed, insect and disease control provide growers with treatment options to control targeted pests while minimizing treatment costs.

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources
216	Integrated Pest Management Systems
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants
213	Weeds Affecting Plants
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
601	Economics of Agricultural Production and Farm Management
211	Insects, Mites, and Other Arthropods Affecting Plants

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Government Regulations
- Competing Programmatic Challenges

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #4**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Environment and Natural Resources

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	30%		30%	
112	Watershed Protection and Management	23%		23%	
133	Pollution Prevention and Mitigation	8%		8%	
135	Aquatic and Terrestrial Wildlife	22%		22%	
403	Waste Disposal, Recycling, and Reuse	7%		7%	
605	Natural Resource and Environmental Economics	10%		10%	
Total		100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	30.0	0.0	15.9	0.0
Actual	24.1	0.0	14.9	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
427554	0	485578	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
427554	0	485578	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
2425965	0	5047539	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Appropriate research experiments; Result demonstrations; Individual consultations as appropriate; Group meetings

2. Brief description of the target audience

Commercial and recreational fishermen; General public; Landowners;

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	62000	30000	0	0
2008	58870	193111	33372	866

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted**

Year	Target
Plan:	2
2008 :	5

Patents listed

M-Tyrosine as a Termite Deterrent

Efficient and Economic Asymmetric Synthesis of Nooktkatone, Tetrhydronooktkatone, Their Precursors and Derivatives Joint AC/BR

Naphtalene Derivatives as Termite Repellants and Toxicants

Paratransgenesis to Control Termites and Other Social Insects

Electrostatic Particulate Matter Air Sampler

3. Publications (Standard General Output Measure)**Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	0	10	
2008	53	48	0

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Clientele reached

Year	Target	Actual
2008	25000	25000

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Clientele adopting recommended practices

Outcome #1**1. Outcome Measures**

Clientele adopting recommended practices

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	65	65

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

The health and well being of Louisiana's citizens depend on its resource-based economy. Louisiana's natural capital assets must be efficiently managed for both current and future generations. Effective resource management implies utilization but also careful analyses of resource allocation decisions made today and their current and future positive and negative impacts. While research and extension efforts related to natural resource conservation, use, and management have increased in recent years, efforts have been fragmented and widely dispersed.

What has been done

The LSU AgCenter commissioned the Center for Natural Resource Economics & Policy (CNREP), a team of economists and policy professionals that coordinate the research and extension activities of natural resource management at LSU and other institutions in the southeastern US. The new center is helping Louisiana meet resource management challenges by engaging and supporting research and extension faculty in socioeconomic initiatives related to energy, coastal and inland wetlands, fisheries, wildlife, land, and water resources.

Results

Many successful initiatives for commercial and recreational fisheries have emerged, most recently in response to natural disasters. A model to estimate economic impacts of hurricanes on coastal infrastructure was developed by CNREP faculty. Using GIS and revenue data to develop damage estimates, the model was pivotal to secure recovery funding after storms in 2005 and 2008. With this funding, the AgCenter provided economic basis for > \$250 million in recovery funding for Louisiana's commercial and recreational fisheries. CNREP researchers identified and implemented several applied research initiatives related to coastal wetland restoration. Examples of research in this area include valuation studies, benefit-cost analyses, and project discounting assessments. The net result is an increasing loss of program efficiency in the allocation of nearly \$1 billion in project spending since 1991. This work prompted re-evaluation of the state's coastal restoration expenditures. In the past year, such spending efficiency improved greatly, and > \$130 million in state and federal restoration funds were redirected to more rapid, cost-effective projects.

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
133	Pollution Prevention and Mitigation
403	Waste Disposal, Recycling, and Reuse

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Retrospective (post program)
- Before-After (before and after program)
- During (during program)

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #5**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Family Development

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
801	Individual and Family Resource Management	43%		43%	
802	Human Development and Family Well-Being	57%		57%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	44.0	0.0	5.0	0.0
Actual	27.3	0.0	5.4	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
483923	0	169700	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
483923	0	169700	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
3828176	0	1152974	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Appropriate research activity; appropriate educational experiences, i.e. group meetings, mass media, etc.; Individual consultations as appropriate.

2. Brief description of the target audience

Our clients will be the general public including: those with low income, the elderly, youth, and young families, early childhood educators, parent/guardians, farm families, employees, employers, business owners and business groups and the incarcerated.

Community leaders targeted include: educators, elected officials, AgCenter faculty, AgCenter partners, gatekeepers, local government, media representatives, policymakers, and master volunteers. Members of the financial community targeted include: bankers, insurance agents, mortgage companies, bankruptcy officials and filers. Regulatory and targeted building clients include: builders, building inspectors, DEQ, DNR, DOE, FEMA, DSS, homebuyers and first-time homebuyers, hurricane evacuees, hurricane impacted homebuyers, permit officers, and realtors

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	190000	0	0	0
2008	63562	288271	11588	2588

2. Number of Patent Applications Submitted (Standard Research Output)

Patent Applications Submitted

Year	Target
Plan:	0
2008 :	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	0	0	
2008	141	3	0

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Clientele reached

Year	Target	Actual
2008	190000	190000

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Parents implement positive parenting practices

Outcome #1**1. Outcome Measures**

Parents implement positive parenting practices

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	50	50

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Disaster Recovery: Results of hurricanes in 2005 still are an issue affecting individuals and family resilience. Hurricanes Katrina and Rita damaged or destroyed nearly 1/3 of Louisiana's housing units. Financial Security: Louisiana high school seniors answered correctly only 45.3% of questions on personal financial basics. Further, 25-60% of American workers suffer from severe financial distress. Early Brain Development: Costs imposed by high school dropouts on the state equal \$470,000 - \$750,000 per student.

What has been done

Disaster Recovery: Two chapters (one in press, one in preparation) will address how families can use their strengths to recover from disasters. A home-buyer education course was developed and piloted. Financial Security: Financial management workshops were conducted; Saving and Investing for Life (SAIL), a workplace saving and investing series, was developed and delivered.

Early Brain Development: The Little Bookshelf Program was initiated on family literacy. The Parents Preparing for Success Program (PPSP) continued a 4th year on parenting and money management skills.

Results

Disaster Recovery: Indicators of lessons learned regarding family resilience will be not be witnessed until a future hurricane. Home-buyer education course reached 132 potential home buyers. Of the participants 37 of 132 (28%) have become homeowners. Most of these graduates have qualified for \$5,000-\$10,000+ in down payment assistance. Financial Security: Ten 6-hr workshops reached 123 teachers, who will reach 12,772 high school students. Mean scores of students' whose teachers completed the training workshops increased 12%. Twenty 8-hr SAIL series reached 451 employees. Highly significant differences were realized in SAIL participants' knowledge and saving behavior. Employers may expect returns of up to \$4,024 per employee who improves his financial behavior. Early Brain Development: Two thousand parents participated in The Little Bookshelf Program and 4000 parents have participated in PPSP. Early evaluation indicates 3/4 of parents are reading daily to their infants. Research suggests that this will result in increased IQ's and vocabularies translating to success in school. Data on longer term outcomes will be collected.

4. Associated Knowledge Areas

KA Code	Knowledge Area
801	Individual and Family Resource Management
802	Human Development and Family Well-Being

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Public Policy changes
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- Case Study
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #6**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Forestry and Forest Products

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
123	Management and Sustainability of Forest Resources	45%		45%	
511	New and Improved Non-Food Products and Processes	40%		40%	
604	Marketing and Distribution Practices	15%		15%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	9.0	0.0	12.0	0.0
Actual	7.4	0.0	9.9	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
131882	0	37576	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
131882	0	37576	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
748307	0	3936872	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Appropriate research experiments; Result demonstrations; Individual consultations as appropriate; Group meetings

2. Brief description of the target audience

Landowners; Forestry industry; General public

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	25000	25000	0	0
2008	24799	49241	11193	0

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted**

Year	Target
Plan:	1
2008 :	4

Patents listed

Protecting Wood with Stabilized Boron Complexes
 Polymer Cellulosic Fiber Composite Skinned Structural Insulated Panels
 Composites Made of Used Plastic Containers with Residual Oil and Cellulosic Fibers
 Thermoplastic Cellulosic Fiber Blends as Lost Circulation Materials

3. Publications (Standard General Output Measure)**Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	0	40	
2008	48	20	0

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Clientele reached

Year	Target	Actual
2008	10000	10000

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Percentage of clientele adopting recommended practices

Outcome #1**1. Outcome Measures**

Percentage of clientele adopting recommended practices

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	65	65

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Issues facing forestry and forest products faculty in Louisiana are wide ranging and during 2008 included management effects on hydrology and water quality and their reciprocal effects on forests, invasive plants, degradation of coastal forests and restoration tools and incentives, plant medicinal properties, long-term forest term productivity. Forest products saw needs in improving processing production, recycling, marketing, and worker safety. Both managers and loggers asked for continuing education.

What has been done

Dendrochronological and hydrological field studies were conducted to assess response of wetland forests to hydrological changes. Wood is being recycled by removing heavy metals from decommissioned preservative-treated wood and new engineered wood products developed from the material. Classifying coastal forest condition has begun with both ground and remote sensing methods. Various workshops satisfied the continuing education need.

Results

Louisiana's coastal forests will benefit from identifying sustainable areas of forests and identifying the hydrological effects on these forests. They will also benefit from landowner incentives for sustaining coastal forests. Forest management statewide benefited from knowledge of management effects on hydrology and water quality, effects of management on long-term growth, and reestablishment of indigenous vegetation in forests. A USDA SBIR grant lead to a new plant to recycle treated wood. Progress has been made in developing wood composite manufacturing procedures and marketing certified products to consumers. Extension activities have also influenced clientele. Many reported that they have adopted new practices after attending our workshops. Fourteen foresters completed workshops in forestry applications of Excel; 192 foresters and loggers completed the culminating workshop on ethics; and 64 foresters and land managers qualified as Certified Prescribed Managers.

4. Associated Knowledge Areas

KA Code	Knowledge Area
604	Marketing and Distribution Practices
511	New and Improved Non-Food Products and Processes
123	Management and Sustainability of Forest Resources

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(l). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Retrospective (post program)
- Before-After (before and after program)
- During (during program)

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #7**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Horticulture

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
202	Plant Genetic Resources	8%		8%	
204	Plant Product Quality and Utility (Preharvest)	10%		10%	
205	Plant Management Systems	41%		41%	
211	Insects, Mites, and Other Arthropods Affecting Plants	13%		13%	
212	Pathogens and Nematodes Affecting Plants	28%		28%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	13.0	0.0	29.0	0.0
Actual	27.2	0.0	24.2	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c 456625	1890 Extension 0	Hatch 637422	Evans-Allen 0
1862 Matching 456625	1890 Matching 0	1862 Matching 637422	1890 Matching 0
1862 All Other 2590915	1890 All Other 0	1862 All Other 6588697	1890 All Other 0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Appropriate research experiments; Result demonstrations; Individual consultations as appropriate; Group meetings

2. Brief description of the target audience

Fruit, nut, and vegetable commercial producers; homeowners and home gardeners; nursery growers and related agribusiness clientele.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	100000	75000	0	0
2008	137849	742376	17375	2365

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 1

2008 : 1

Patents listed

Sweetpotato Plant named Murasaki-29

3. Publications (Standard General Output Measure)**Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	0	15	
2008	222	17	0

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Clientele reached

Year	Target	Actual
2008	25000	25000

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Percentage of clientele adopting recommended practices

Outcome #1**1. Outcome Measures**

Percentage of clientele adopting recommended practices

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	70	70

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Horticulture professionals seek to improve production efficiency, enhance marketing potential, and reduce environmental impact associated with pesticide and fertilizer use. Market produce growers desire research on sustainable production and harvest season extension. Budgeting information is needed. Nursery and landscape professionals are facing environmental issues. Home gardeners require information in the areas of species and cultivar selection, weed management, and production practice improvements. Sustainable landscape information is desired.

What has been done

A publication on post-harvest handling of sweet potato addressed harvesting, curing and storage. Louisiana Yards and Neighborhood was initiated at Louisiana House to address sustainable landscape issues. Sustainable landscape print news articles were initiated. Get It Growing media efforts addressed home horticulture topics. Rose research expanded. Marketing ideas for horticulture were compiled. Weed research for nursery, landscapes and lawns continued. Efforts addressed Asian citrus psyllid and citrus greening. Vegetable and strawberry production trials continued.

Results

Growers and buyers have improved information to address promoting quality and shelf-life extension of sweet potatoes. The Get It Growing effort produced 260 radio stories, 52 print news articles and 52 television stories. Nursery producers were 71%, 67% and 56% likely to follow LSU AgCenter recommendations in the areas of fertilization, weed control and disease/insect management, respectively. Ornamental plant recommendations were made via landscape plant evaluation studies. Insecticide recommendations were made for control of the Asian citrus psyllid. An average Louisiana home garden produced a cash equivalent of \$3,135 of produce with interest in home gardening increasing 2.4% in the last year. Best management practices adopted by Louisiana home vegetable gardens ranged from 30-68%. Summer Flavor 710, Star and Stripes, and Juliette are recommended watermelon varieties. The top Bt sweet corn variety in 2008 was GSS 0969. A new bioproduct reduced nematodes and increased yields in strawberries.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems
211	Insects, Mites, and Other Arthropods Affecting Plants
204	Plant Product Quality and Utility (Preharvest)
212	Pathogens and Nematodes Affecting Plants
202	Plant Genetic Resources

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Competing Programmatic Challenges

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #8**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Nutrition and Food

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
501	New and Improved Food Processing Technologies	45%		45%	
502	New and Improved Food Products	21%		21%	
503	Quality Maintenance in Storing and Marketing Food Products	12%		12%	
702	Requirements and Function of Nutrients and Other Food Components	12%		12%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins	10%		10%	
Total		100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	70.0	0.0	10.4	0.0
Actual	18.0	0.0	9.4	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c 277591	1890 Extension 0	Hatch 301692	Evans-Allen 0
1862 Matching 277591	1890 Matching 0	1862 Matching 301692	1890 Matching 0
1862 All Other 2636179	1890 All Other 0	1862 All Other 2312481	1890 All Other 0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Appropriate research activity; appropriate educational experiences, i.e. group meetings, mass media, etc.; Individual consultations as appropriate.

2. Brief description of the target audience

General public

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	40000	400000	0	0
2008	276755	235411	337521	7832

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 1

2008 : 6

Patents listed

*Antifungal and Anti-Cariogenic Cellobio-Oligosaccharides Produced by Dextransucrase

*Assay for Detection of V. vulnificus

*Resistant Starch with Cooking Properties Similar to Untreated Starch

*Sweet Gum Fruit Extract as a Therapeutic Agent

*Terpene Glycosides as Natural Solubilizers and Antiangiogenic Compounds

*Water-Soluble Nanoparticles Containing Water-Insoluble Compounds (was 'Synthesis of Water-Soluble Nanoparticles Containing Water-Insoluble...)

3. Publications (Standard General Output Measure)**Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	0	20	
2008	176	49	0

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Clientele reached

Year	Target	Actual
2008	850000	10000

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Participants are knowledgeable about and follow healthy weight management practices

Outcome #1**1. Outcome Measures**

Participants are knowledgeable about and follow healthy weight management practices

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	200	200

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

In 2008 Louisiana ranked 50th among states in health, 4th in obesity, 1st in diabetes incidence, and 5th in heart disease incidence. Consequently, improving the health of Louisiana's citizens is a high priority and nutrition education should be of foremost importance. Louisiana also has the 2nd highest poverty rate in the nation; an estimated 26% of children live in poverty. A direct consequence of abdominal obesity is high fatty acids in the blood and inflammation in vascular cells which can be reduced by fruit and cocoa extracts.

What has been done

The Smart Portions Program was developed to teach adults the basics of health lifestyle habits. The Smart Choices curriculum was developed to teach nutrition, food safety and money management to low-income families and youth. These were paired with Smart Bodies, a nutrition and physical activity program for children. Research on Louisiana commodities demonstrated that components such as resistant starch (RS) derived from rice, and other anti-inflammatory food components, can help lower cardiovascular and other chronic diseases that result from inflammation.

Results

Delivering Smart Portions and Smart Choices nutrition education increased consumption of fruits, vegetables, and whole grains, decreased consumption of foods high in saturated fats, and increased physical activity (PA). Eighty percent of adults became more PA; 80% made changes in food choices; 60% doubled daily vegetable and 40% increased whole grain and fruit consumption; and 40% reduced foods high in saturated fat. Recipients demonstrated improved food safety skills, resource management, and food-related practices. Food stamp nutrition education program reached > 11,000 low-income adults and more than 37,000 youth. Smart Bodies was recognized as a Program of Distinction to combat childhood obesity. Ninety elementary schools statewide participated and more than 35,000 youth experienced the Body Walk. RS has been incorporated into several food systems. The benefits of RS have been shown to be fewer calories, increased satiety, reduced abdominal fat and anti-inflammatory properties. Laboratory and clinical trials are planned for the near future. A task force has been organized to develop the Louisiana Foods for Health Initiative.

4. Associated Knowledge Areas

KA Code	Knowledge Area
712	Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occurring Toxins
502	New and Improved Food Products
702	Requirements and Function of Nutrients and Other Food Components

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Public Policy changes
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}

Program #9**V(A). Planned Program (Summary)****1. Name of the Planned Program**

Youth Development

V(B). Program Knowledge Area(s)**1. Program Knowledge Areas and Percentage**

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%		100%	
	Total	100%		100%	

V(C). Planned Program (Inputs)**1. Actual amount of professional FTE/SYs expended this Program**

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	95.0	0.0	0.0	0.0
Actual	92.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
1592869	0	0	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1592869	0	0	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
9038028	0	0	0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Age appropriate educational experiences will be provided to youth.
 Appropriate adult education principles will be used to determine educational experiences for volunteers

2. Brief description of the target audience

Primarily youth ages 9-19 as well as youth and adult volunteers.

V(E). Planned Program (Outputs)**1. Standard output measures****Target for the number of persons (contacts) reached through direct and indirect contact methods**

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	115000	125000	700000	400000
2008	201760	154201	966471	471588

2. Number of Patent Applications Submitted (Standard Research Output)**Patent Applications Submitted****Year Target****Plan:** 0

2008 : 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan	0	0	
2008	125	0	0

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

- Youth reached

Year	Target	Actual
2008	850000	250000

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O No.	OUTCOME NAME
1	Youth to be actively engaged in learning and given the opportunity for mastery Youth to become engaged members of the community Adults and youth gain knowledge and skills associated with personal, organization, & community leadership

Outcome #1**1. Outcome Measures**

Youth to be actively engaged in learning and given the opportunity for mastery
 Youth to become engaged members of the community
 Adults and youth gain knowledge and skills associated with personal, organization, & community leadership

2. Associated Institution Types

•1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2008	500	500

3c. Qualitative Outcome or Impact Statement**Issue (Who cares and Why)**

Louisiana ranks 49th among states for > 100 indicators of child well-being and last for drop-outs and single-parent homes. Eighth graders with below basic standardized test scores are: 36%, Basic Math; 19%, Science; and 19%, Reading. Civic scores for 8th and 12th graders did not improve from 1998 to 2006. Less than half (44%) of youth had computers in their home. Louisiana youth are among the unhealthiest in the nation; 36% of 10-17 year olds are overweight and 46% don't exercise regularly.

What has been done

Three Mission Mandates addressed these issues: Healthy Living; Science, Engineering & Technology; and Citizenship. Belonging, which is linked to well-being, independence and intrinsic motivation, is promoted through these projects. Smart Bodies (SB), a nutrition and physical activity program, reached K-5th youth in 32 parishes. Camping reached > 5,000 youth. Youth Wetlands Week (YWW) reached 55,000 youth. Service-learning projects reached > 36,000 people. Over 6,500 volunteers supported 4-H programs; over 1450 completed chaperone training.

Results

In a Belonging evaluation of 4-H Club programs, 97% of youth felt accepted by and more comfortable with the group. As a result of summer camp, 87% of campers improved their ability to make decisions and felt more confident. Recognized as a National 4-H Youth Development Program of Distinction, SM reached 35,642 children in 90 schools. Participation in SB produced a statistically significant increase in nutrition and PA knowledge. In SET Programming, 11,822 students reported significant increase of 28% in pre-and post test measures focused on YWW knowledge. With 38 parishes reporting service-learning (S-L) projects, over 775 youth and adults donated more than 5,700 hours worth \$106,108.30 and generating \$62,791.61 in support. As a result of S-L, 94% of youth have a better understanding of community problems. For character development, 96% were more tolerant of others and 93% treat others with respect. In statewide Volunteer training evaluation, 96% of the volunteers broadened their knowledge of new 4-H projects. In the Overnight Chaperone Program, 98% understood how to create positive youth environments and 94% felt more better handling discipline.

4. Associated Knowledge Areas

KA Code	Knowledge Area
806	Youth Development

V(H). Planned Program (External Factors)**External factors which affected outcomes**

- Natural Disasters (drought, weather extremes, etc.)
- Public Policy changes
- Government Regulations
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

{No Data Entered}

V(I). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- During (during program)
- Case Study
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}